


## STATUS REPORT

### Ethanol Pumps

#### If you voted YES:

 **Energy:** Ethanol has proved to be a great benefit for the island, reducing the impacts of an oil shortage. **Gain 3.**

 **Environment:** Pollution levels have improved, but farmland has degraded due to poor farming practices on fuel crop lands. **Lose 1.**

 **Economy:** Long distance shipping across the country have increased air pollution and the cost of fuel. **Lose 1.**

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#### If you voted NO:

 **Energy:** An oil shortage caused long lines at fueling stations. **Lose 3.**


 **Environment:** Pollution levels remain high in some Argyle cities. **Lose 1.**


 **Economy:** Gas prices went up due to the oil shortage, **lose 2.**


## STATUS REPORT

### Hydrogen Buses

#### If you voted YES:


 **Energy:** You are able to fuel the Bunk bus fleet without dependence of foreign fuels. **Gain 2.**


 **Environment:** Hydrogen from water is a zero emission fuel, the busses will help clean up Bunk's air, **gain 2.**


 **Economy:** The bus project has been expensive, but international hydrogen research will benefit from your experiment. **Lose 2.**

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#### If you voted NO:

 **Energy:** Your entire bus fleet continues to rely on foreign fuels, which might decline in the near future. **Lose 2.**


 **Environment:** Diesel fumes from the buses continue to pollute the air and cause lung disease, **lose 2.**


 **Economy:** You saved a lot of money by not investing in hydrogen fleets. **Gain 2.**


## STATUS REPORT

### Geothermal Heat Pumps

#### If you voted yes:


 **Energy:** Many households have installed GHPs and taken a major load off of the fossil fuel based energy resources. **Gain 2.**


 **Environment:** Geothermal heat pumps (GHPs) have reduced the use of polluting energy sources. **Gain 3.**


 **Economy:** The GHPs were very expensive, but they should pay themselves off in reduced heating costs in less than 10 years. **Lose 1.**

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#### If you voted no:

 **Energy:** The fossil fuel based energy resources on Argyle continue to strain under the burden of high demand. **Lose 2.**

 **Environment:** Most homes continue to rely on polluting energy sources. **Lose 3.**

 **Economy:** You saved a lot of money by not investing in GHPs, but continue to pay high heating bills. **Gain 2.**


## STATUS REPORT

### Passive Solar

#### If you voted YES:


 **Energy:** You saved energy use in the new city hall. **Gain 2.**

 **Environment:** You reduced reliance on polluting energy sources. **Gain 2.**


 **Economy:** The addition of solar design cost a lot this year, but will eventually save almost half of the building's heating costs in future years. **Lose 1.**

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#### If you voted NO:

 **Energy:** You missed your chance, now you have to increase Argyle's electric production to meet the needs of the new building, **Lose 2.**




 **Environment:** You continue to rely on polluting energy sources. **Lose 2.**

 **Economy:** You saved money but the heating bills for the City Hall are higher than they would have been with passive solar design. **gain 1.**




## STATUS REPORT

### Hybrid Electric Vehicles

#### If you voted YES:

-  **Energy:** You have helped Argyle to reduce its gasoline consumption. **Gain 2.**
-  **Environment:** The citizens who have taken advantage of the tax incentive have helped to reduce air emissions from automobiles. **Gain 2.**
-  **Economy:** Argyle's tax incentive was costly to the government because so many people purchased hybrid cars. **Lose 1.**




#### If you voted NO:

-  **Energy:** Gas consumption continues to rise. Unless other sources are discovered and tapped, Argyle could face an energy crisis. **Lose 2.**
-  **Environment:** Air pollution levels are becoming unbearable in Argyle's cities. **Lose 2.**
-  **Economy:** Oil supplies have gotten low causing price increases. But the government avoided the expense of the hybrid tax incentives. **Gain 1.**




## STATUS REPORT

### Electric Vehicles (EVs)

#### If you voted YES:

-  **Energy:** It took more time than planned to convert to electric vehicles. So, not as much energy was saved as had been hoped. **Gain 2.**
-  **Environment:** Air quality in the cities has improved greatly. **Gain 2.**
-  **Economy:** Converting to EVs was expensive and charging them has increased household electricity costs, but saved on gasoline expenses. **Gain 1.**




#### If you voted NO:

-  **Energy:** You saved electricity, but continue to use a lot of gasoline. **Lose 2.**
-  **Environment:** Air quality has gotten worse, more people have been hospitalized for lung disease. **Lose 2.**
-  **Economy:** You saved money by not purchasing EVs, but gasoline expenses have gone up and the cost of health care to care for people suffering from lung disease is high. **Lose 2.**




## STATUS REPORT

### Biodiesel

#### If you voted YES:

-  **Energy:** You have chosen a renewable energy source that Argyle can provide at a reasonable cost. **Gain 2.**
-  **Environment:** Biodiesel creates much reduced greenhouse gas pollution because it burns much cleaner than petroleum. **Gain 2.**
-  **Economy:** Changing the country's municipal fleet and developing the fuel distribution system has been more expensive than planned. A drought added to the problems of growing the plants. **Lose 2.**




#### If you voted NO:

-  **Energy:** There is an unexpected energy emergency: an oil spill in the Wiggly Ocean has decreased the country's supply of diesel fuel. **Lose 2.**
-  **Environment:** Argyle's air pollution levels continue to increase. The number of asthma and lung disease cases is also rising, causing increased health costs for Argyle. **Lose 2.**
-  **Economy:** By not converting Argyle's diesel-powered fleet to biodiesel, you have saved the government a lot of money on fuel storage & distribution systems. **Gain 1.**




## STATUS REPORT

### Bicycle Library

#### If you voted YES:




-  **Energy:** You saved energy by using people power. Only 300 bikes were used though, because only a few people participated this first year. **No net loss or gain.**
-  **Environment:** You helped reduce traffic jams and vehicle miles traveled (vmt) which results in less air pollution. **Gain 1**
-  **Economy:** Those that participated drove less, which freed up money for savings and other recreational activities. **Gain 1**

#### If you voted NO:




-  **Energy:** Car travel is still on the rise, using more gasoline. **No net loss or gain.**
-  **Environment:** A new superhighway will need to be built to reduce traffic jams. It will destroy wildlife habitat. **Lose 1**
-  **Economy:** People are spending more money on gas. **Lose 1**

## STATUS REPORT Nuclear Power

If you voted YES:




-  **Energy:** You created a major energy source. **Gain 4.**
-  **Environment:** The nuclear power plant has reduced fossil fuel pollution, improving air quality. However, spent nuclear fuel is a serious threat to the environment. **Lose 3.**
-  **Economy:** Electricity costs are much higher than expected, because we must save for the future costs to pay for disposal of the hazardous nuclear wastes. **Lose 4**

If you voted NO:




-  **Energy:** You lost your chance for a major energy source. **Lose 4.**
-  **Environment:** You have avoided the problem of what to do with the hazardous nuclear wastes, but fossil fuel usage continues to harm air quality. **Gain 1.**
-  **Economy:** You saved millions of dollars by not building the nuclear power plant. **Gain 4.**

## STATUS REPORT Insulation

If you voted YES:

-  **Energy:** Congratulations! By insulating the homes of Argyle, you saved a lot of energy. **Gain 2.**
-  **Environment:** Because people use less energy to heat their homes, there was less pollution from fossil fuels and air quality improved. **Gain 2.**
-  **Economy:** Insulating homes was expensive, but the initial cost paid for itself in lower heating bills. **Gain 2.**

If you voted NO:

-  **Energy:** Argyle had a very cold winter. You used even more energy to heat your homes than normal. **Lose 2.**
-  **Environment:** Increased winter use of fossil fuels caused much pollution; air quality suffered. **Lose 2.**
-  **Economy:** The additional use of energy through the winter cost Argyleans a lot in added heating bills. **Lose 2.**

## ROLE CARD



The MAP MAKER will:

- Draw a symbol on the map for each vote that results in a new energy source.
- report and point out the locations where energy sources were placed at the end of the game.






The SCORE KEEPER will:




- Keep track of the energy, environment and economy points, by moving the token up and down the scales.
- make sure the group does not go bankrupt, have a blackout, and does not destroy the environment beyond repair

## STATUS REPORT Natural Gas Drilling and Pipeline

If you voted yes:

-  **Energy:** You provided heat for all Argyle residents, but natural gas reserves turned out to be smaller than expected, and will last only 30 years. **Gain 3.**
-  **Environment:** Air quality has improved a little, but a lot of land has been altered or damaged by the pipeline, and the fishermen on the Bing Islands have suffered from lower catches due to drilling. **Gain 1.**
-  **Economy:** The project was expensive and the gas will not last as long as first expected. **Lose 2.**




If you voted No:

-  **Energy:** Argyle's **industry** needed this energy resource. Now they have to import fuel from another country. **Lose 3.**
-  **Environment:** Argyle's people have chosen to install cleaner renewable fuels instead of drilling for gas, and you preserved important wildlife habitats along the pipeline corridor and in the ocean. **Gain 2.**
-  **Economy:** The cost of installing renewable fuel is high in the first few years. **Lose 2.**

## STATUS REPORT




### Solar Rooftops

#### If you voted YES:

-  **Energy:** You gained a steady supply of electricity, a renewable resource. **Gain 2.**
-  **Environment:** You reduced use of nonrenewable and polluting energy sources, but pollutant emissions from *manufacturing* photovoltaic panels has increased. **Gain 2.**
-  **Economy:** Installing solar panels was expensive, although it will save money each year it is used. **Lose 1.**

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#### If you voted NO:

-  **Energy:** You missed your chance to invest in an alternative energy source. **Lose 2.**
-  **Environment:** You continue to rely on polluting energy sources and greenhouse gases are causing climate change. **Lose 3.**
-  **Economy:** You saved a lot of money, but health care rates continue to go up in Tonga as more people suffer from lung ailments. **Gain 1.**

## STATUS REPORT




### Hydroelectric Dam

#### If you voted YES:

-  **Energy:** You created a reliable source of electricity production. **Gain 3.**
-  **Environment:** You replaced a polluting fossil fuel plant with clean water power, but you destroyed almost half of the habitat for an endangered species, flooded an historic town, and blocked the passage for fish. **Lose 2.**
-  **Economy:** Building the dam cost you a lot, but you created a steady source of electricity that will be around for a long time. **Gain 2.**

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#### If you voted NO:

-  **Energy:** You missed a chance to gain a reliable renewable source of electricity. **Lose 3.**
-  **Environment:** You continue to rely on a polluting fossil fuel plant, but you protected an endangered species, an historic town and important fish stocks. **Gain 2.**
-  **Economy:** You saved money by not building the dam, but your current electricity source costs more than hydro would have. **Gain 2.**

## STATUS REPORT




### Drilling for Oil

#### If you voted YES:

-  **Energy:** You provided oil and gasoline for almost sixty years. **Gain 3.**
-  **Environment:** Oil spilled at the well site killed off the Weeping Heron, an endangered species. **Lose 5.**
-  **Economy:** The project cost a lot, but surplus oil has brought needed capital to the island. **No net loss or gain.**

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#### If you voted NO:

-  **Energy:** The country you import oil from went to war, resulting in an oil shortage. **Lose 3.**
-  **Environment:** You did not pollute the water with spilled oil and saved the weeping crane and island fisheries. **Gain 3.**
-  **Economy:** You saved a lot by not drilling for oil, but the oil shortage has nearly doubled gas prices. **No net loss or gain.**

## STATUS REPORT




### Wind Farm

#### If you voted YES:

-  **Energy:** You created a steady supply of renewable energy. **Gain 2.**
-  **Environment:** Wind power has helped reduce air pollution. Bird kills were reduced by locating the wind machines out of migrating bird flyways. **Gain 2.**
-  **Economy:** Your wind farm produces energy fairly cheaply. **Gain 2.**

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#### If you voted NO:

-  **Energy:** You could not supply enough energy for air conditioning this summer and had to reduce power, resulting in brownouts. **Lose 2.**
-  **Environment:** You continue to rely on polluting and greenhouse gas emitting fuels. **Lose 2.**
-  **Economy:** You saved construction costs but continued pollution drives up costs of health care. **Gain 1.**